



The background to the campaign

Grand Central (GC) are an open access rail operator in the UK, operating services on the East Coast mainline between Sunderland, Bradford and London Kings Cross. The GC fleet consists of ten five car Class 180 units which is maintained at Arriva Rail North's (ARN) Heaton Train Maintenance Depot (TMD) in Newcastle since 2007.

Recent changes have seen the Light Maintenance of the GC fleet being transferred to Crofton TMD, which has enabled Heaton TMD to become the focal point for Heavy Maintenance.

GC's strategic objectives for the Class 180 fleet is to ultimately increase engineering output and drive down cost, one of the tactical initiatives to generate revenue was to increase weekend train availability. The weekend train availability target was 6 units from 10, the target was to increase to 7 units from 10.



Challenges

The immediate challenge for the maintenance team was to reduce the number of days it takes to complete a heavy maintenance exam from 5 or 6 days down to 4 days consistently so that the exam unit can be made available for weekend service.

Purpose: – to train and develop ARN Heaton TMD leadership team, Class 180 Production Manager and Class 180 heavy maintenance Team Leaders in leading a culture of daily CI. To help the leaders in establishing a leadership style that improves Class 180 heavy maintenance team performance, productivity and promotes daily CI through coaching,

Objectives: – to improve the quality, the output of the Class 180 16-man heavy maintenance team through the removal of waste from existing depot operations and maintenance processes using Lean principles and thinking whilst developing the team's capability to ultimately achieve more with the same team.

Outcomes: – to have ARN leaders capable of leading performance improvement of Class 180 heavy maintenance through a structured Lean management system using daily Plan, Do, Check, Action [PDCA] and Lean problem solving through coaching, leading with questions and challenge.



Solutions

The output of Project7 programme support delivered value for ARN Heaton TMD, GC and the Class 180 heavy maintenance teams in the following areas:

- Developed ARN and Class 180 leaders who understand how to lead Lean and the daily leadership system in daily CI and effective Lean problem solving for Class 180 Heavy Maintenance.
- A Visual Performance Management Centre that provides improved, measurable performance in Class 180 Heavy Maintenance Safety, Quality, Delivery, Cost and People engagement in daily CI [SQDCP].
- A developed Class 180 heavy maintenance team who understand and can practically apply structured Pit-Stop Maintenance methodology to the heavy maintenance production line to identify and eliminate waste resulting in the reduction of time to complete maintenance tasks.
- Improved problem-solving capabilities and root cause learning for the Class 180 heavy maintenance team, resulting in increased process and operation awareness and effective problem corrective actions.
- Increased Lean thinking and technical capability of the Class 180 heavy maintenance leadership and maintenance team as Lean becomes habitual or 'business as usual'.
- Creation of a 'Centre of Excellence' for the Class 180 heavy maintenance production line using Lean tools, techniques and associated behaviours.

Implementation :

- Class 180 Team Charter developed with GC & ARN & senior stakeholders to ensure clarity & alignment of objectives
- Class 180 KPI & metrics developed & deployed
Class 180 Balanced Scorecard developed, KPI Tree & targets set based on SQCDP KPIs & metrics used to cascade objectives & performance reviewed daily
- Class 180 Visual Performance Management Centre
07:40 Structured Start of Shift briefings
11:30 Structured Daily Production Meeting
- Class 180 Pit Stop Maintenance carried out on A-Shafts & Air Dryers
37% improvement of time taken to complete on A-Shafts
59% improvement of time taken to complete on Air Dryers
Full tooling & material lists created
- Class 180 Centre of Excellence
Visual Performance Management & twice daily meetings
Alignment & deployment of Class 180 SQCDP KPIs & performance metrics
Process Confirmation developed and introduced
- Class 180 Lean Leadership Coaching
7 Habits of Lean Leadership Excellence profile
TGROW Coaching methodology used for Rob Giblin
- Class 180 Material & Heavy Maintenance Planning
Weekly Alstom HM material & planning meeting
7 / 14-day HM plan process developed
8 Week Look Ahead process developed
HM Material delivery metrics developed
- Class 180 Open Defects reduced by 20%
- Class 180 Heavy Maintenance cost savings of £9k annually re-occurring